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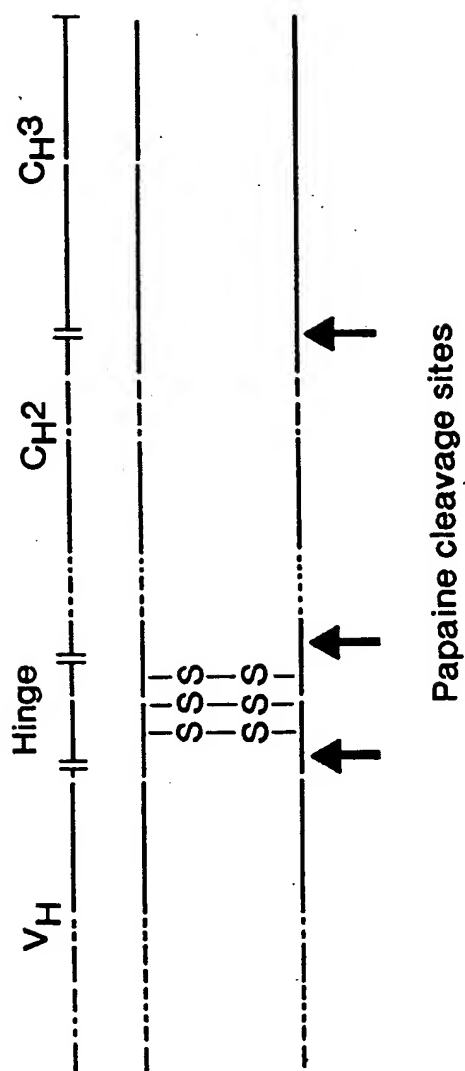
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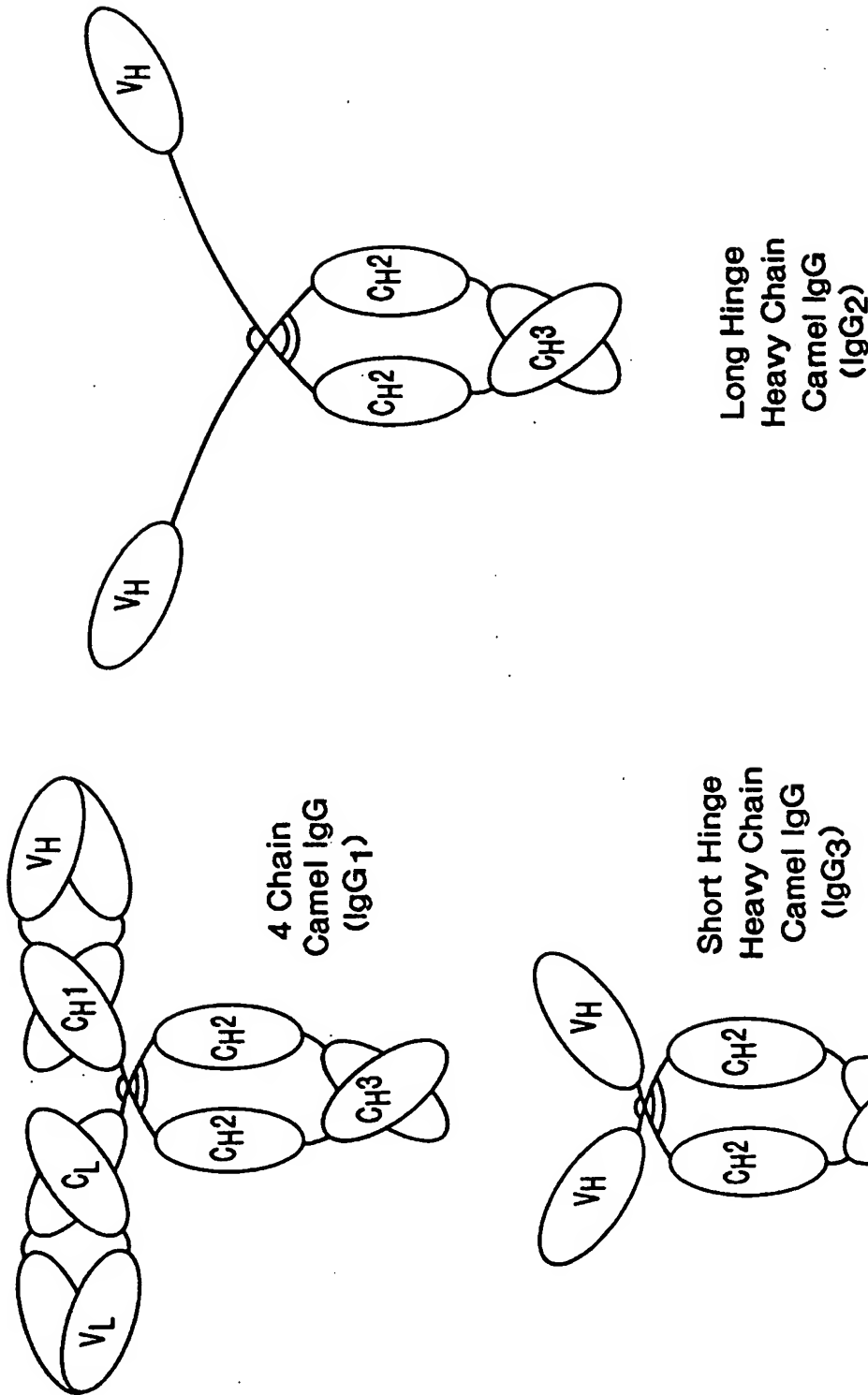
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# Replacement Sheet



**FIG. 5**



**FIG. 6**

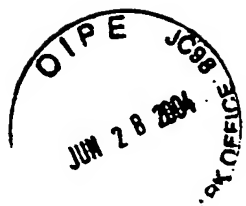


## Replacement Sheet

SEQ ID NO: 92	DR01006	C-----TCGAG---	TCTGGGGGAGG
SEQ ID NO: 93	DR27006	C-----TCGAG---	TCTGGGGGAGG
SEQ ID NO: 94	DR03006	C-----AGGTGA-----AACTGCTCGAG---	TCTGGAGGAGG
SEQ ID NO: 95	DR11006	C-----TCGAG---	TCTGGGGGAGG
SEQ ID NO: 96	DR24006	C-----AGGTGA-----AACTGCTCGAG---	TCTGGGGGAGG
SEQ ID NO: 97	DR16006	C-----TCGAG---	TCTGGAGGAGG
SEQ ID NO: 98	DR19006	C-----TCGAG---	TCTGGAGGAGG
SEQ ID NO: 99	DR07006	C-----TCGAG---	TCTGGGGGAGG
SEQ ID NO: 100	DR16006	C-----TCGAG---	TCTGGGGGAGG
SEQ ID NO: 101	DR20006	C-----TCGAG---	TCAGGGGGAGG
SEQ ID NO: 102	DR25006	C-----TCGAG---	TCTGGGGGAGG
SEQ ID NO: 103	DR20006	C-----TCGAG---	TCTGGAGGAGG
SEQ ID NO: 104	DR21006	C-----TCGAG---	TCTGGGGGAGG
SEQ ID NO: 105	DR09006	C-----AGGTGA-----AACTGCTCGAG---	TCTGGGGGAGG
SEQ ID NO: 106	DR17006	C-----TCGAG---	TCTGGGGGAGG
SEQ ID NO: 107	DR13006	C-----TCGAG---	TCAGGGGGAGG
SEQ ID NO: 108	DR02006	CTCGAGTCAGGTGTCCGGTCTGATGTGCAGCTGGTGGCGTCTGGGGGAGG	

DR01006	ATCGGTGCAGGCTGGAGGGTCTCTGAGACTCTC--GTGCG-CAGCCTCTG
DR27006	CTCGGTGCAGGCTGGAGGGTCTCTGAGACTCTCCTGTGCATCTTCTTCTA
DR03006	CTCGGTGCAGACTGGAGGATCTCTGAGACTCTCCTGTGCAGT--C-TCTG
DR11006	GTCGGTGCAGGCTGGAGGGTCTCTGAGACTCTCCTGTAATGT--C-TCTG
DR24006	GTCGGTGCAGGCTGGAGGGTCTCTGAGACTCTCCTGTAATGT--C-TCTG
DR16006	CTCGGCGCAGGCTGGAGGATCTCTGAGACTCTCCTGTGCAGC--CCACGG
DR19006	CTCGGTTTCAGGCTGGAGGGTCCCTTAGACTCTCCTGTGCAGC--C-TCTG
DR07006	CTCGGTGCAGGGTGGAGGGTCTCTGAGACTCTCCTGTGCAA---TCTCTG
DR16006	CTCGGTGCAGGCTGGAGGGTCTCTGAGACTCTCCTGTACAG---GCTCTG
DR20006	CTCGGTACAGGTTGGAGGGTCTCTGAGACTCTCCTGTGTAG---CCTCTA
DR25006	CTCGGTACAACTGGAGGGTCTCTGAGACTCTCTTGCG---AAATCTCTG
DR20006	CTCGGTGCAGGCTGGAGGGTCTCTGAGACTCTCCTGTG---TAGCCTCTG
DR21006	CTCGGTGCAGGTTGGAGGGTCTCTGAACTCTCCTGTAAAT---CTCTG
DR09006	CTCGGTGCAGGCTGGGGGGTCTCTGACACTCTCTTGTTG---TATACAC--
DR17006	CTCGGTCCAACCTGGAGGATCTCTGACACTCTCCTGTACAGTT---TCTG
DR13006	CTCGGTGGAGGCTGGAGGGTCTCTGAGACTCTCCTGTACAG---CCTCTG
DR02006	CTCGGTGCAGGCTGGAGGCTCTCTGAGACTCTCCTGTACAG---CCTCTG

DR01006	GA--TACAGTAATT---GTCCCCTCACTTG-GAGCTGGTATCGCCAGTTT
DR27006	AA--TATATGCCTT---GCACCTACGACAT-GACCTGGTACCGCCAGGCT
DR03006	GA--TTCTCCTTTA---GTACCAGTTGTAT-GGCCTGGTTCCGCCAGGCT
DR11006	GC--TCTCCAGTA---GTACTTATTGCCT-GGGCTGGTTCCGCCAGGCT
DR24006	GC--TCTCCAGTA---GTACTTATTGCCT-GGGCTGGTTCCGCCAGGCT
DR16006	GA--TTCCGC-TCA---ATGGTTACTACAT-CGCCTGGTTCCGTCAGGCT
DR19006	AC--TACACCATCA---CTGATTATTGCAT-GGCCTGGTTCCGCCAGGCT
DR07006	GA--TACACGTACG---GTAGCTTCTGTAT-GGGCTGGTTCCGCGAGGGT
DR16006	GA--TTCCCCTATA---GTACCTTCTGTCT-GGGGTGGTTCCGCCAGGCT
DR20006	CT--CACACCGACA---GTAGCACCTGTAT-AGGCTGGTTCCGCCAGGCT
DR25006	GA--TTGACTTTTG---ATGATTCTGACGT-GGGGTGGTACCGCCAGGCT
DR20006	GA--TTCAATTTTCG---AACTTCTCGTAT-GGCGTGGTACCGCCAGACT
DR21006	GAGGTACCCAGATCGTGTTCCTAAATCTTTGGCCTGGTTCCGCCAGGCT
DR09006	-----CAACGATACTGGGACCA-----TGGGATGGTTTCGCCAGGCT
DR17006	--GGGCCACCTACA---GTGACTACAGTATTGGA-TGGATCCGCCAGGCT
DR13006	G-----ATACGTAT-CCT---CTATGGCCTGGTTCCGCCAGGTT
DR02006	GAGA----CAGTTTCAGTAGATT--TGCCATGTCTTGGTTCCGCCAGGCT



# Replacement Sheet

DR01006	CCAGGAACGGAGCGCGAGTTCGTCTCCAGTATGGATCCGGATGGAAATAC
DR27006	CCAGGCAAGGAGCGCGAATTTGTCTCAAGTATAAATATTGATGGTAAGAC
DR03006	TCAGGAAAGCAGCGTGAGGGGGTTCGAGCCATTAATAGTGCGGGTGGTAG
DR11006	CCAGGGAGGGAGCGTGAGGGGGTTCACAGCGATTAA-----CACTGATGG
DR24006	CCAGGGAGGGAGCGTGAGGGGGTTCACAGCGATTAA-----CACTGATGG
DR16006	CCTGGGAAGGGGCGTGAGGGGGTTCGCAACAATTAATGGTGGTCG-----
DR19006	CCAGGGAGGGAGCGTGAAATTGGTTCGAGCGATTCAAGTTGTCCGTAGTGA
DR07006	CCAGGCAAGGAACGTGAGGGGGATCGCAACTATTCTTAATGGTGGTACTAA
DR16006	CCAGGGAGGGAGCGTGAGGGGGTTCGCGG6TATTAATAGTGCAGGAGGTAA
DR20006	CCAGGGAGGGAGCGCGAGGGGGTTCGCAAGTATATATTTTGGTGATGGTGG
DR25006	CCAGGGCATGAGTGCAAATTGGTCTCAGGTATTCTGAGTGATGGTACT-C
DR20006	CCAGGAAATGTGTGTGAGTTGGTCTCAAGTATTTACAGTGATGG-----
DR21006	CCAGAGAAGGAGCGCGAGGGGGATCGCAGTTCTTTGACTAAGGATGGTAA
DR09006	CCAGGGAAAGAGTGCGAAAGGGTTCGCGCATATTACGCCTGATGGTATGA-
DR17006	CCAGGGAGGACCGTGAAGTAGTCGCGAGCCGCTAATACTGGTG-----
DR13006	CCAGGGCAGGAGCGCGAGGGGGTTCGCGTTTGTTCAAACGG-----
DR02006	CCAGGGAGGAGTGCGAATTGGTCTCAAGCATTCAAAGTAATGGAAGGAC
DR01006	CAAGTACA-----CATACTCCGTGAAGGGCCGCTTCACC
DR27006	AACATACG-----CAGACTCCGTGAAGGGCCGATTTCACC
DR03006	GACATACTA-CAACACATATGTCGCCGAGTCCGTGAAGGGCCGATTTCGCC
DR11006	CAGTATCAT-ATACGCA-----GCCGACTCCGTGAAGGGCCGATTTCACC
DR24006	CAGTGTCAT-ATACGCA-----GCCGACTCCGTGAAGGGCCGATTTCACC
DR16006	-----CGA-CGTACATACTACGCCGACTCCGTGACGGGCCGATTTCACC
DR19006	TACT--CGC-C-TCACAGACTACGCCGACTCCGTGAAGGGACGATTTCACC
DR07006	-----CATACTATGCCCAGTCCGTGAAGGGCCGATTTCACC
DR16006	-----TACTTACTATGCCGACGCCGTGAAGGGCCGATTTCACC
DR20006	-----TACGAATTATCGCGACTCCGTGAAGGGCCGATTTCACC
DR25006	CATATACAAAGAGTGGAGACTATGCTGAGTCTGTGAGGGGCGGGTTACC
DR20006	CA-AAACATACTACGTTCGACC--GCA-----TGAAGGGCCGATTTCACC
DR21006	GA-----CATTCTATGCCGACTCCGTGAAGGGCCGATTTCACC
DR09006	-----CCTTCATTGATGAACCCGTGAAGGGGCGATTTCACG
DR17006	-----CGACTAGTAAATTCTACGTTCGACTTTGTGAAGGGCCGATTTCACC
DR13006	--CTGACAAT-AGTGCAATTATATGGCGACTCCGTGAAGGGCCGATTTCACC
DR02006	AACTGA-----GGCCGATTCCGTGCAAGGCCGATTTCACC
DR01006	ATGTCCCGAGGCAGCACCGAGTACACAGTATTTCTGCAAATGGACAATCT
DR27006	ATCTCCCAAGACAGCGCCAAGAACACGGTGTATCTGCAGATGAACAGCCT
DR03006	ATCTCCCAAGACAACGCCAAGACCACGGTATATCTTGATATGAACAACCT
DR11006	ATCTCCCAAGACACCGCCAAGGAAACGGTACATCTCCAGATGAACAACCT
DR24006	ATCTCCCAAGACACCGCCAAGAAAACGGTATATCTCCAGATGAACAACCT
DR16006	ATCTCCCGAGACAGCCCCAAGAATACGGTGTATCTGCAGATGAACAGCCT
DR19006	ATCTCCCAAGGCAACACCAAGAACACAGTGAATCTGCAAATGAACAGCCT
DR07006	ATCTCCCAAGACAGCACGTTGAAGACGATGTATCTGCTAATGAACAACCT
DR16006	ATCTCCCAAGGGAATGCCAAGAATACGGTGTTCGCAAATGGATAACTT
DR20006	ATCTCCCAACTCAACGCCCAGAACACAGTGTATCTGCAAATGAACAGCCT
DR25006	ATCTCCAGAGACAACGCCAAGAACATGATATACCTTCAAATGAACGACCT
DR20006	ATTTCTAGAGAGAATGCCAAGAATACATTGTATCTACAACCTGAGCGGCCCT
DR21006	ATCTTCTTAGATAATGACAAGACCACTTTCTCCTTACAACCTTGATCGACT
DR09006	ATCTCCCGAGACAACGCCCAGAAAACGTTGTCTTTGCGAATGAATAGTCT
DR17006	ATTTCCCAAGACAACGCCAAGAATACGGTATATCTGCAAATGAGCTTCCT
DR13006	ATCTCCACGACAACGCCAAGAACACGCTGTATCTGCAAATGCGCAACCT
DR02006	ATCTCCCGAGACAATTCCAGGAACACAGTGTATCTGCAAATGAACAGCCT

FIG. 7B



# Replacement Sheet

DR01006	GAAACCTGAGGACACGGCGATGTATTACTGTAAAAC-A---GCCCTAC--
DR27006	GAAACCTGAGGACACGGCGATGTATTACTGTAAAAT-A---GA--TTC--
DR03006	AACCCCTGAAGACACGGCTACGTATTACTGTGCGGCGG---TCCCAGCCC
DR11006	GCAACCTGAGGATACGGCCACCTATTACTGCGCGGCAA---GACTGACGG
DR24006	GCAACCTGAGGATACGGCCACCTATTACTGCGCGGCAA---GACTGACGG
DR16006	GAAACCTGAGGACACGGCCATCTACTTCTGTGCAGCAG---G-----CTC
DR19006	GACACCTGAGGACACGGCCATCTACAGTTGTGCGGCAA---C-----CAG
DR07006	GAAACCTGAAGACACGGGCACCTATTACTGTGCTG-CA---GAACTAAGT
DR16006	GAAACCTGAGGACACGGCCATCTATTACTGCGCGG-CG---GATAGTCCA
DR20006	GAAACCTGAGGACACGGCCATGTACTACTGTGCAATCA---CTGAAATTG
DR25006	GAAACCTGAGGACACGGCCATGTATTACTGCGCGGTAGATGTTGGACCC
DR20006	CAAACCTGAGGACACGGCCATGTATTACTGTGCG-----CC
DR21006	GAACCCGGAGGACACTGCCGACTACTACTGCGCTGCAATCAATTAGC--
DR09006	GAGGCCTGAGGACACGGCCGTGTATTACTGTGCGGCGAGATTG-----
DR17006	GAAACCTGAGGACACGGCCATCTATTACTGTGCGGCGAG-----CGGACCC
DR13006	GCAACCTGACGACACTGGCGTGTACTACTGTGCGGCC-----CAA
DR02006	GAAACCCGAGGACACGGCCGTGTATTACTGTGGGGCAGT-----

DR01006	-----A-AC--CTGGGGGTTATTGTGGGTA-
DR27006	-----GTAC--CCGTGCCATCTCCTTGATG-
DR03006	ACTTGGGACCT-----GGCG-CCATT-----CTTGATTG
DR11006	AGATGGGGGCTTGTGATGCGAGATGGGCGACCTTAGC--GACAAGGAC-G
DR24006	AGATGGGGGCTTGTGATGCGAGATGGGCGACCTTAGC--GACAAGGAC-G
DR16006	GCGTTTTT-CTAGTCCTGTTGGGAGCACTTC-TAGAC---TCGAAAGTAG
DR19006	TAGTTTTTACTGGTACT-----GCAC-----C---ACG-----G
DR07006	GGTGGTAGTTGTGAATTGC---CTTTGC-----TATTTGACTA-----
DR16006	TGTTACATGCCGACTATGC---CCGCTCCCCGATACGAGACAGTTTTGG
DR20006	AGTGGTATGGGTGCAATTT--AAGGACTACTTTTACT---C-----G
DR25006	GGAAGGAAG--GGGGAATCGGGTTAC----CCTGGTCGGTCCAATGTGAA
DR20006	GGTTGAA-----TATC----CTATTGCAGAC--ATGTGTT
DR21006	---TGGTGGCTGGTATT-----TGGACCCGAATTACTGG-CTCTCTGTG
DR09006	---GAAATACTGGA----CTTGTGGTGC--CCAGA-CTGG-----AG
DR17006	AAGTATATATTATAGTATC-----CTCCNNAT-----
DR13006	AAGAAGGATCGTA-----CTAGATGGG-----CGAGCCT-----
DR02006	-----CTCCCTAA--TGGACCGAATTTT

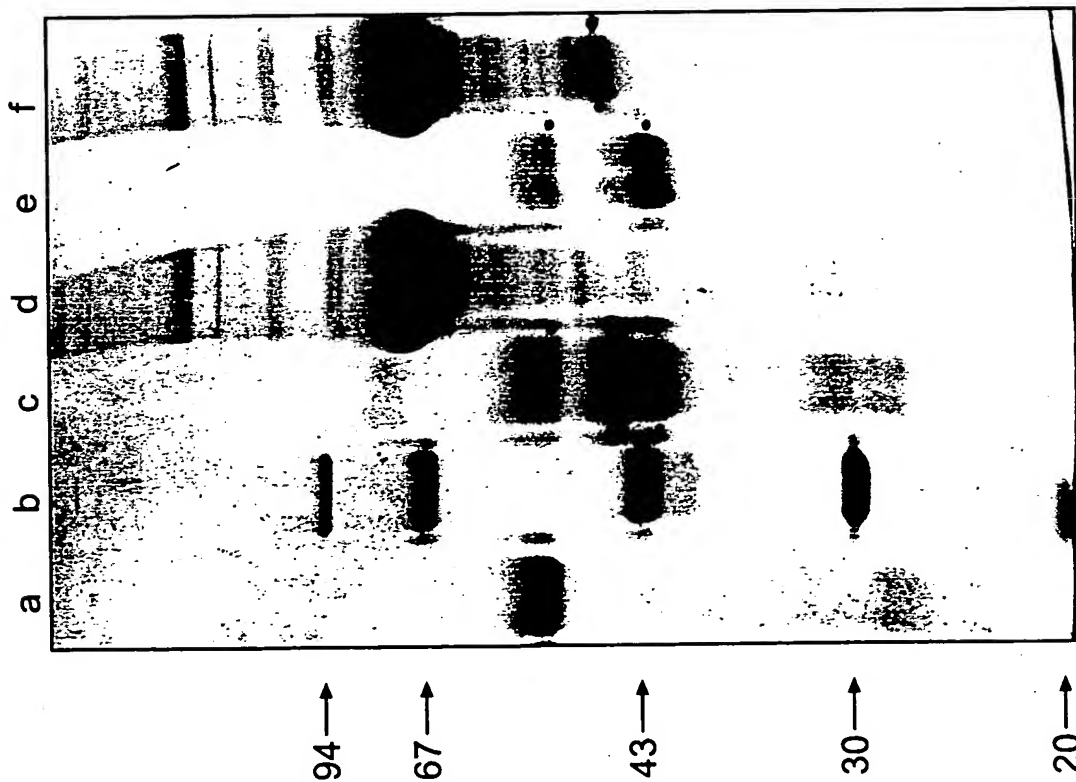
DR01006	--TGGGTANTGCCTCTGGGGCCAGGGGACCCAGGTACCGTCTCCTCACT
DR27006	--T-----CTGGGGCCAGGGGACCCAGGTACCGTCTCCTCACT
DR03006	AAAAAGTATAAGTACTGGGGCCAGGGGACCCAGGTACCGTCTCCTCACT
DR11006	TTTGCGTATAACTACTGGGGCCGGGGGACCCAGGTACCGTCTCCTCACT
DR24006	TTTGCGTATAACTACTGGGGCCGGGGGACCCAGGTACCGTCTCCTCACT
DR16006	CGA-CT-ATAACTATTGGGGCCAGGGGATCCAGGTACCGTCACTCACT
DR19006	CGC-CTTATAACGTCTGGGGTACAGGGGACCCAGGTACCGTCTCCTCACT
DR07006	CTGGG-----GCCAGGGACCCAGGTACCGTCTCCTCACT
DR16006	CTGGGATGATTTT-----GGCCAGGGGACCCAGGTACCGTCTCCTCACT
DR20006	CTGGG-----GCCAGGGGACCCAGGTACCGTCTCCTCACT
DR25006	GATGGTTATAACTATTGGGGCCAGGGGACCCAGGTACCGTCTCCTCAC-
DR20006	CGAGAT----ACG---GCGACCCGGGGACCCAGGTACCGTCTCCTCAC-
DR21006	GGTGCAATATGCCATCTGGGGCCAGGGGACCCAGGTACCGTCTCCTCAC-
DR09006	GATACTTCGGACAG-TGGGGTACAGGGGGCCAGGTACCGTCTCCTCACT
DR17006	--TGAGTATAAGTACTGGGGCCAGGGGACCCAGGTACCGTCTCCTCA--
DR13006	CGAGAATGGAACAACTGGGGCCAGGGGACCCAGGTACCGTCTCCTCA--
DR02006	CCAACATGGG--TGCCGGGGCCAGGGAACCCAGGTACCGTCTCCT---



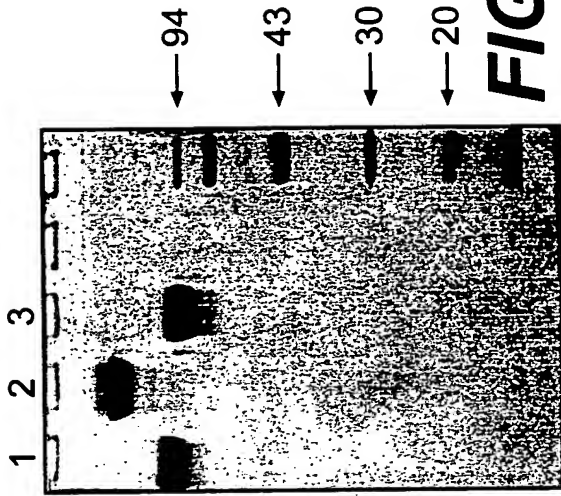
## Replacement Sheet

DR01006	AG----	TTACCCGTACGACGTTCCGGACTACGGTTCTTAATAGAATTC
DR27006	AG----	TTACCCGTACGAGCTTCCGGACTACGGTTCTTAATAGAATTC
DR03006	AGCTAGTTACCCGTACGACGTTCCGGACTACGGTTCTTAATAGAATTC	
DR11006	AG----	TTACCCGTACGACGTTCCGGACTACGGTTCTTAATAGAATTC
DR24006	AGCTAGTTACCCGTACGACGTTCCGGACTACGGTTCTTAATAGAATTC	
DR16006	----	AGTTACCCGTACGACGTTCCGGACTACGGTTCTTAATAGAATTC
DR19006	----	AGTTACCCGTACGACGTTCCGGACTACGGTTCTTAATAGAATTC
DR07006	----	AGTTACCCGTACGACGTTCCGGACTACGGTTCTTAATAGAATTC
DR16006	----	AGTTACCCGTACGACGTTCCGGACTACGGTTCTTAATAGAATTC
DR20006	----	AGTTACCCGTACGACGTTCCGGACTACGGTTCTTAATAGAATTC
DR25006	---	TAGTTACCCGTACGACGTTCCGGACTACGGTTCTTAATAGAATTC
DR20006	---	TAGTTACCCGTACGACGAACCGGACTACGGTTCTTAATAGAATTC
DR21006	---	TAGTTACCCGTACGACGTTCCGGACTACGGTTCTTAATAGAATTC
DR09006	AGCTAGTTACCCGTACGACGTTCCGGACTACGGTTCTTAATAGAATTC	
DR17006	-----	
DR13006	-----	
DR02006	-----	-----TA

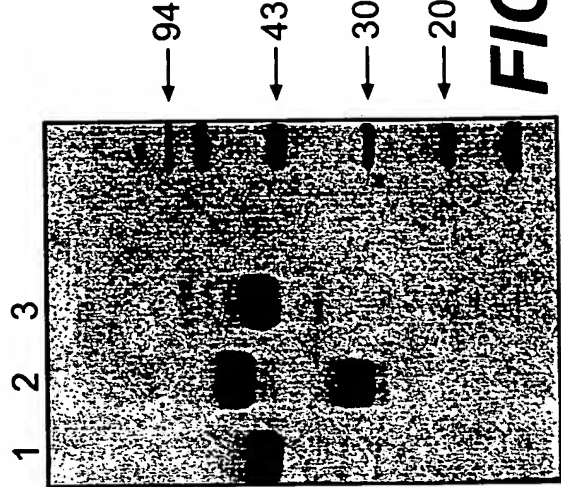
**FIG. 7D**



**FIG. 1A**



**FIG. 1B**



**FIG. 1C**

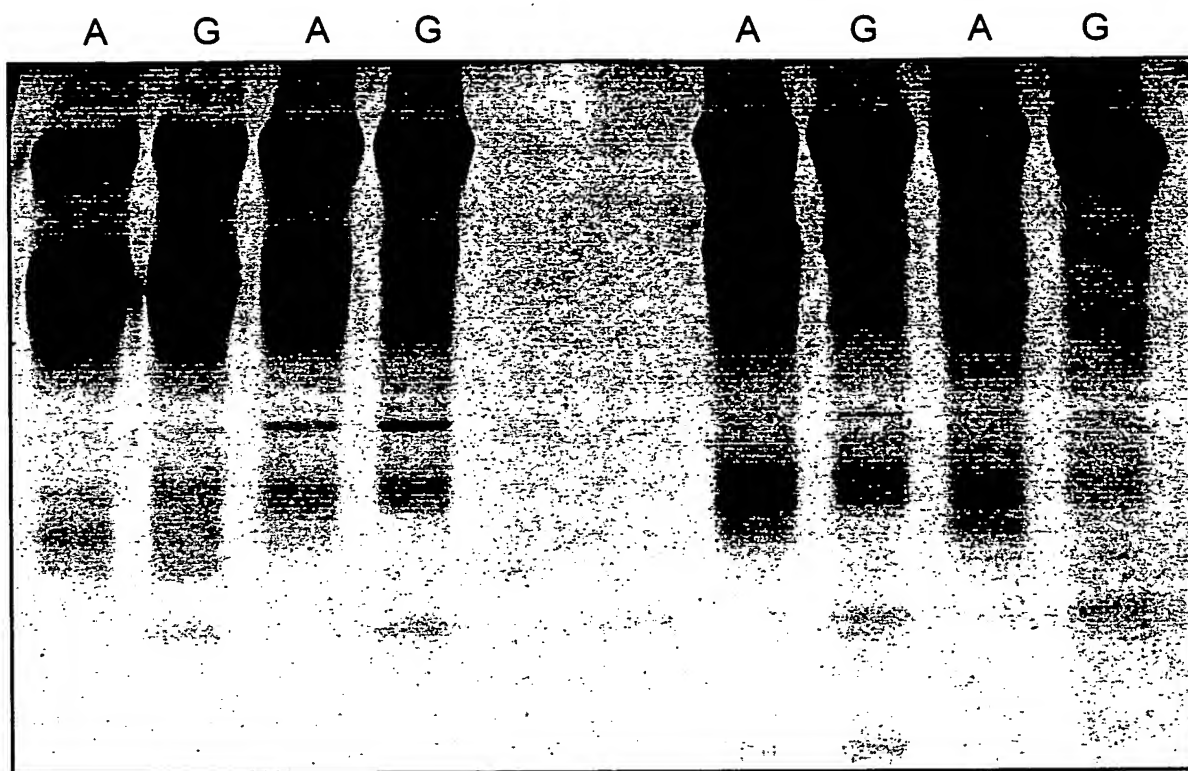




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13281 U.S. PTO

# Replacement Sheet



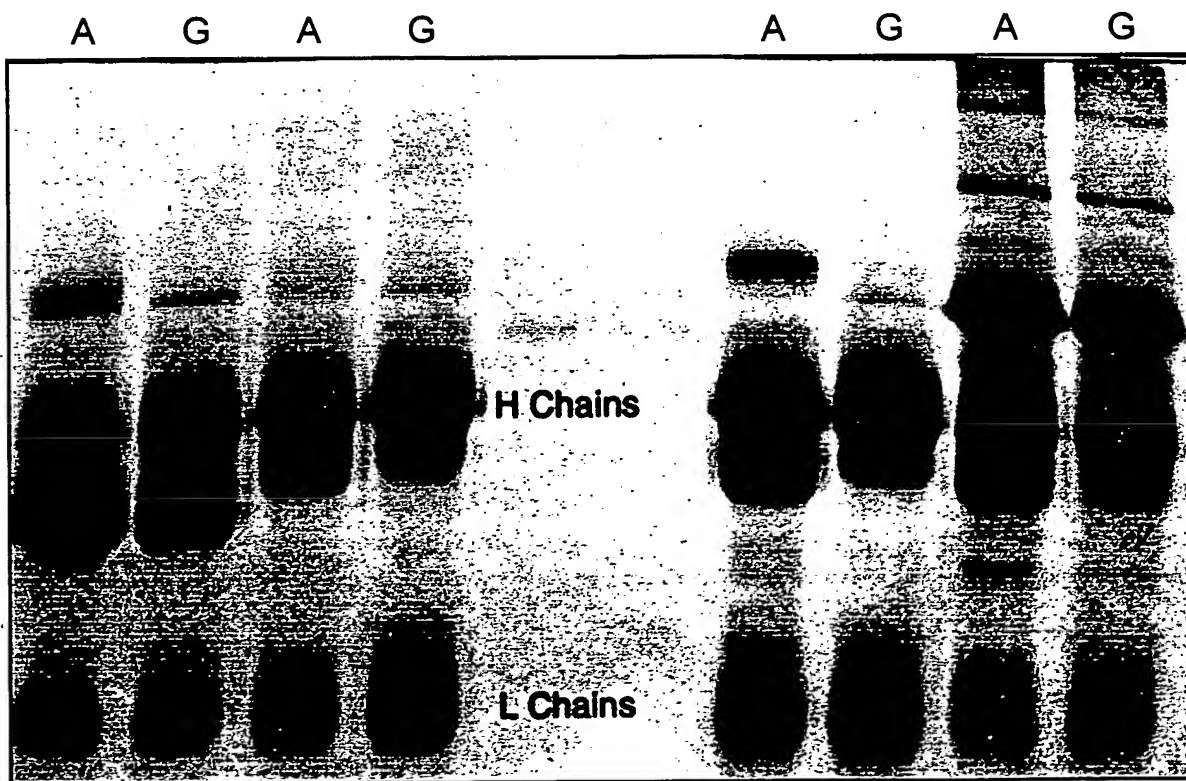
*C. bactrianus*

*L. vicugna*

*L. glama*

*L. pacos*

**FIG. 2A**



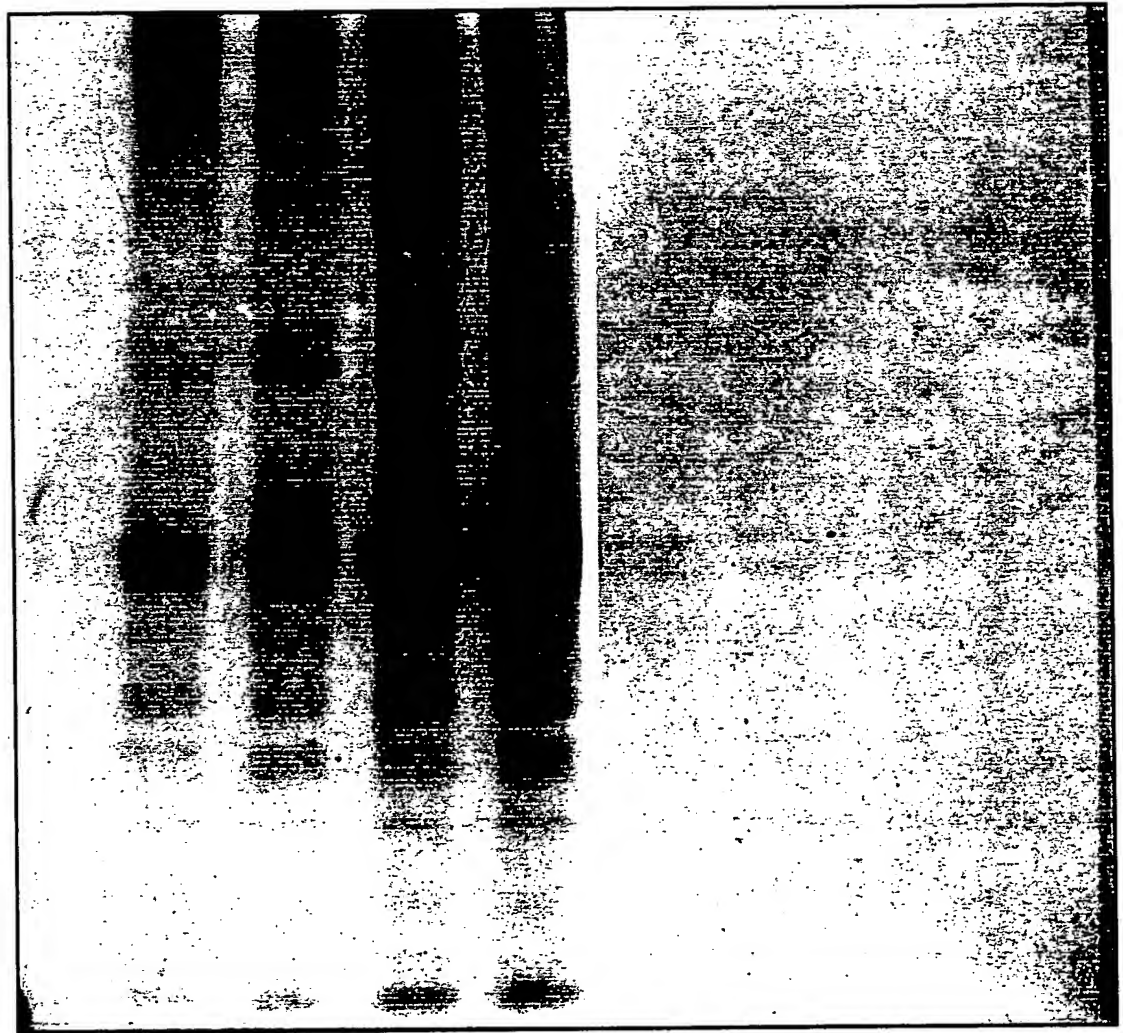
**FIG. 2B**



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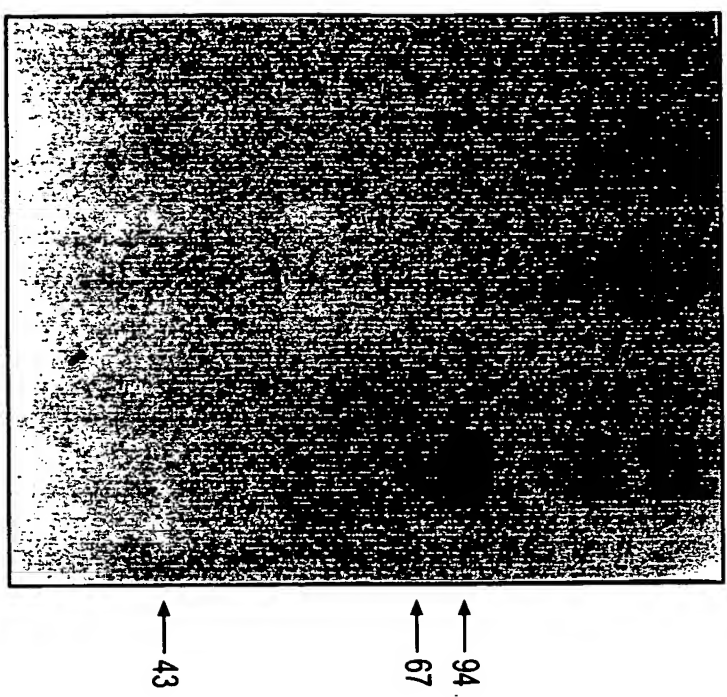
13281 U.S. PTO

# Replacement Sheet



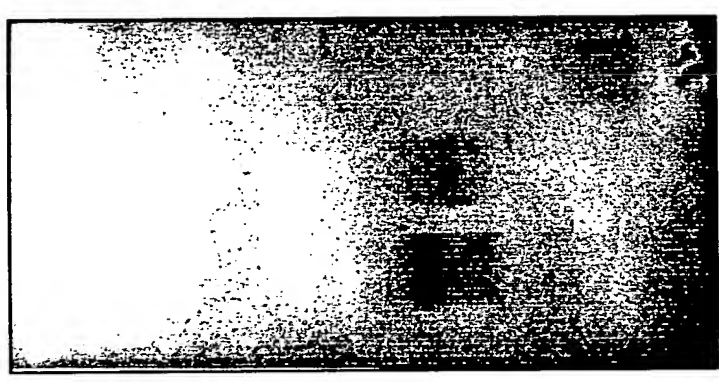
T. evansi infected					Healthy				
Prot. A	Ig1	Ig2	Ig3	Tot.Ser	Ig1	Ig2	Ig3	Tot.Ser	
Control									
Counts/5ul	65	1258	1214	2700	2978	147	157	160	107

**FIG. 3A**



Ig1 Ig2 Ig3 Ig1 Ig2 Ig3  
Healthy T. evansi infected

FIG. 3B

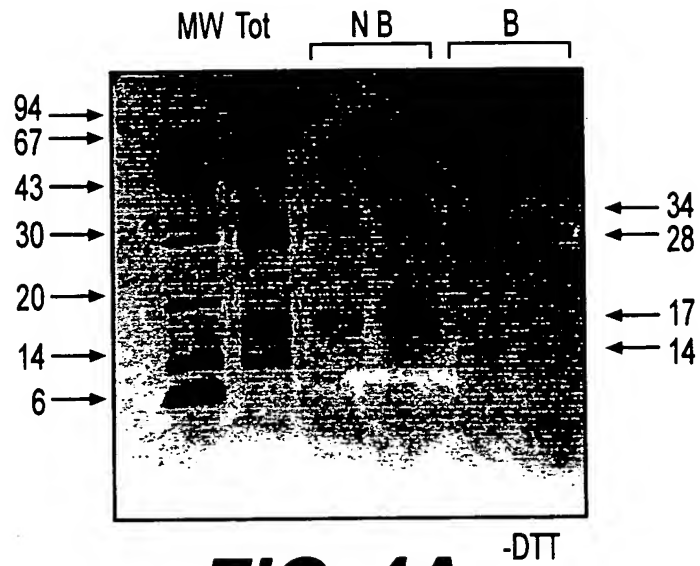


Ig1 Ig2 Ig3  
T. evansi infected  
Ponceau Red

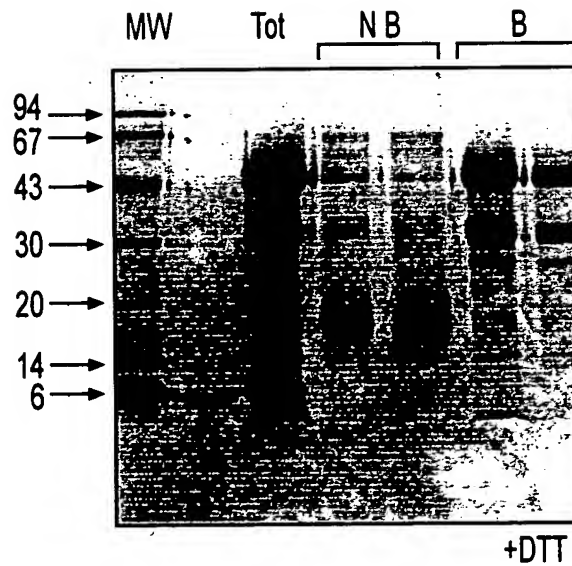
FIG. 3C

Replacement Sheet

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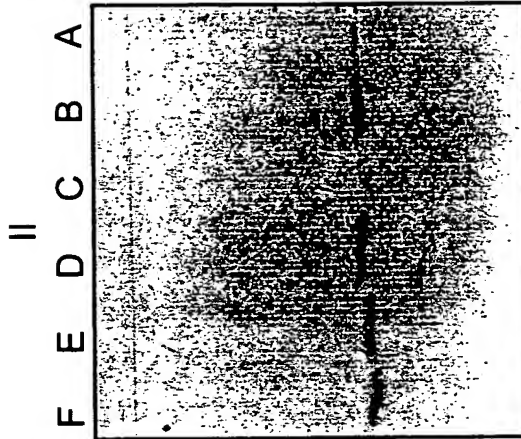


**FIG. 4A**



**FIG. 4B**

**FIG. 8B**



**FIG. 8A**

